

Multiplying Two Trinomials (J)

Simplify each expression.

1. $(4m^3 - m^2 + m)(-m^3 + 2m^2 - 3m)$

2. $(-7d^5 - 8d^4 + 2d^3)(4d^3 + d^2 + 6d)$

3. $(7y^4 - 9y^3 - 9y^2)(-4y^3 - 9y^2 - 4y)$

4. $(-3a^5 + 4a^4 + 9a^3)(7a^5 - 5a^4 - a^3)$

5. $(8a^3 - 4a^2 + a)(8a^4 + 8a^3 + 4a^2)$

6. $(2c^2 + c + 1)(2c^5 + 8c^4 - 6c^3)$

7. $(p^5 - 4p^4 + 5p^3)(p^3 - 4p^2 - 9p)$

8. $(-4a^3 - 6a^2 + 7a)(5a^4 - 8a^3 - 8a^2)$

9. $(9y^2 + 7y - 4)(2y^4 - 9y^3 + 7y^2)$

10. $(-4f^2 + 2f + 9)(-8f^4 - 2f^3 - 9f^2)$

Multiplying Two Trinomials (J) Answers

Simplify each expression.

$$\begin{aligned} 1. & (4m^3 - m^2 + m)(-m^3 + 2m^2 - 3m) \\ & = -4m^6 + 9m^5 - 15m^4 + 5m^3 - 3m^2 \end{aligned}$$

$$\begin{aligned} 2. & (-7d^5 - 8d^4 + 2d^3)(4d^3 + d^2 + 6d) \\ & = -28d^8 - 39d^7 - 42d^6 - 46d^5 + 12d^4 \end{aligned}$$

$$\begin{aligned} 3. & (7y^4 - 9y^3 - 9y^2)(-4y^3 - 9y^2 - 4y) \\ & = -28y^7 - 27y^6 + 89y^5 + 117y^4 + 36y^3 \end{aligned}$$

$$\begin{aligned} 4. & (-3a^5 + 4a^4 + 9a^3)(7a^5 - 5a^4 - a^3) \\ & = -21a^{10} + 43a^9 + 46a^8 - 49a^7 - 9a^6 \end{aligned}$$

$$\begin{aligned} 5. & (8a^3 - 4a^2 + a)(8a^4 + 8a^3 + 4a^2) \\ & = 64a^7 + 32a^6 + 8a^5 - 8a^4 + 4a^3 \end{aligned}$$

$$\begin{aligned} 6. & (2c^2 + c + 1)(2c^5 + 8c^4 - 6c^3) \\ & = 4c^7 + 18c^6 - 2c^5 + 2c^4 - 6c^3 \end{aligned}$$

$$\begin{aligned} 7. & (p^5 - 4p^4 + 5p^3)(p^3 - 4p^2 - 9p) \\ & = p^8 - 8p^7 + 12p^6 + 16p^5 - 45p^4 \end{aligned}$$

$$\begin{aligned} 8. & (-4a^3 - 6a^2 + 7a)(5a^4 - 8a^3 - 8a^2) \\ & = -20a^7 + 2a^6 + 115a^5 - 8a^4 - 56a^3 \end{aligned}$$

$$\begin{aligned} 9. & (9y^2 + 7y - 4)(2y^4 - 9y^3 + 7y^2) \\ & = 18y^6 - 67y^5 - 8y^4 + 85y^3 - 28y^2 \end{aligned}$$

$$\begin{aligned} 10. & (-4f^2 + 2f + 9)(-8f^4 - 2f^3 - 9f^2) \\ & = 32f^6 - 8f^5 - 40f^4 - 36f^3 - 81f^2 \end{aligned}$$